

Patent Abstracts of Japan

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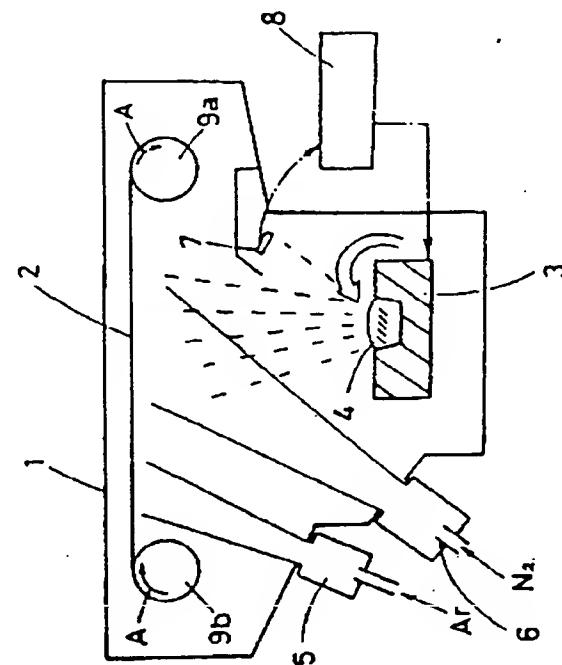
APPLICATION DATE : 11-09-89
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APPLICANT : MATSUSHITA ELECTRIC WORKS LTD;

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TITLE : METHOD AND DEVICE FOR FORMING THIN FILM



ABSTRACT : PURPOSE: To efficiently form a thin film having high denseness by subjecting the surface of a base material to ionic bombardment with activating ion beams, scattering evaporated particles toward the base material and simultaneously irradiating the surface of the base material with reactive ion beams.

CONSTITUTION: Metallic Ti 4 is put on an electron beam evaporating source 3, a vacuum vessel 1 is evacuated and a base material 2 is wound off at a constant rate. The surface of the base material 2 is successively irradiated with Ar^+ ion beams from an ion gun 5 and N^+ ion beams from an ion gun 6. Evaporated metallic Ti is converted into TiN and a thin TiN film having superior adhesion, denseness and wear resistance is continuously formed on the surface of the base material 2 with ion beam energy.

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